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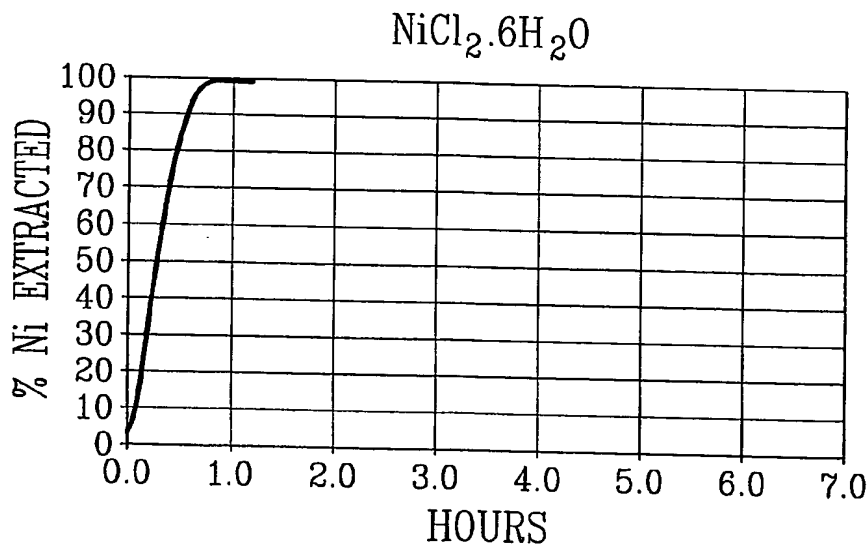
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(54) Title: PRODUCTION OF ACTIVE NICKEL POWDER AND TRANSFORMATION THEREOF INTO NICKEL CARBONYL



(57) Abstract: Active nickel powder is produced by reducing a feed material, containing one or more reducible nickel salts, such that when nickel chloride is present, the weight ratio of chloride to total nickel is greater than 0.1 and the reducible nickel salts have a surface area in excess of 1 m²/g, with a reducing gas containing preferably at least 20 volume per cent hydrogen, at a temperature preferably between 300 °C and 600 °C, and when nickel chloride is not present, by adding hydrogen chloride directly to the reducing gas. The resulting active nickel powder can be rapidly converted into nickel carbonyl by reaction with a gas containing carbon monoxide preferably at atmospheric or super-atmospheric pressure, in the absence of conventional carbonylation catalysts.